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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,634	10/07/2005	Martyn Vincent Twigg	JMYT-347US	2199
23122	7590	06/26/2006	EXAMINER	
RATNERPRESTIA			NGUYEN, TU MINH	
P O BOX 980			ART UNIT	PAPER NUMBER
VALLEY FORGE, PA 19482-0980			3748	

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

1. An Applicant's Preliminary Amendment filed on March 14, 2005 has been entered. Claims 4-12, 22-24, 26-29, and 35 have been canceled; claims 1-3, 13-21, 25, 30-34, 36, and 37 have been amended; and claims 38-40 have been added. Overall, claims 1-3, 13-21, 25, 30-34, and 36-40 are pending in this application.

Specification

2. The abstract of the disclosure is objected to because the use of legal phrase "comprising" and open ended phrase "means". Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1, 3, 13, 14, 16-21, 25, 34, and 36-39 are rejected under 35 U.S.C. 102(a) as being anticipated by Schafer-Sindlinger et al. (PCT Publication No. WO 02/26379) (see U.S. Patent Application 2004/0065078 for the English equivalence).

Re claims 1, 34, 36, and 37, as shown in Figure 1, Schafer-Sindlinger et al. disclose an apparatus and a process for operating said apparatus, the apparatus comprising:

- a diesel engine operable in a first, normal running mode (normal mode; see paragraph 0041) and a second mode (regeneration mode; see paragraphs 0043 and 0044) producing exhaust gas comprising an increased level of carbon monoxide (CO) relative to the first mode, wherein the second mode, a value of at least one measurable parameter (exhaust gas temperature; see paragraph 0020) indicative of a condition of the engine is outside a pre-determined range;

- means (fuel injector) to switch engine operation between the two modes (see paragraph 0043); and

- an exhaust system comprising a catalysed component (1) comprising a substrate monolith comprising a palladium (Pd) catalyst supported on a first support material associated with at least one base metal promoter (first group of components comprises at least one platinum group metal and at least one oxygen storage component) and a platinum (Pt) catalyst associated with the supported Pd catalyst (second group of components comprises a support material and at least one platinum group metal) (see Abstract),

wherein the catalysed component (1) is selected from a catalysed soot filter.

Re claims 3 and 39, in the apparatus of Schafer-Sindlinger et al., the substrate monolith further comprises an arrangement of a supported catalyst selected from a first layer (second group of components) comprising the Pt catalyst and a second layer (first group of components) overlying the first layer, which second layer comprising the supported Pd catalyst and the associated at least one base metal promoter;

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Re claim 13, the apparatus of Schafer-Sindlinger et al. further comprises an engine control means, wherein the engine control means comprises an engine control unit (ECU) (not shown but inherently must have).

Re claim 14, in the apparatus of Schafer-Sindlinger et al., the means for switching between the two modes switches between the first mode and the second mode when the temperature of the supported Pt catalyst is $< 250^{\circ}\text{C}$ (see paragraph 0020).

Re claims 16-18 and 20, in the apparatus of Schafer-Sindlinger et al., the at least one base metal promoter is selected from a reducible oxide, wherein the at least one reducible oxide is selected from the group consisting of MnO_2 , Mn_2O_3 , Fe_2O_3 , SnO_2 , CuO , CoO , and CeO_2 (see the last 4 lines in paragraph 0034)

Re claim 19, in the apparatus of Schafer-Sindlinger et al., the reducible oxide is dispersed on the Pd catalyst support material.

Re claim 21, in the apparatus of Schafer-Sindlinger et al., the at least one base metal promoter is selected from one basic metal, wherein the at least one basic metal is selected an alkaline earth metal selected from the group consisting of barium, magnesium, calcium, and strontium (see paragraph 0034).

Re claim 25, in the apparatus of Schafer-Sindlinger et al., the support material is selected from the group consisting of alumina, silica-alumina, ceria, magnesia, titania, zirconia, a zeolite, and mixtures, composite oxides or mixed oxides of any two or more thereof (see paragraph 0035).

Re claim 38, in the apparatus of Schafer-Sindlinger et al., the Pt catalyst is supported on a second support material (aluminum oxide).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 15, 32, 40 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schafer-Sindlinger et al. as applied to claims 1 and 38, respectively, above, in view of legal precedent.

Re claim 2, the apparatus of Schafer-Sindlinger et al. discloses the invention as cited above, however, fails to disclose that the engine is configured to produce exhaust gas comprising more than 2000 ppm CO when running in the second mode.

Schafer-Sindlinger et al. disclose the claimed invention except for specifying an optimum range of carbon monoxide concentration of more than 2000 ppm to regenerate the catalysed soot filter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a specific optimum range of CO concentration, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Re claims 15 and 40, in the apparatus of Schafer-Sindlinger et al., the Pd catalyst and the Pt catalyst are both disposed on the same support material (see paragraph 0035), wherein the or each support material is selected from the group consisting of alumina, silica-alumina, ceria,

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magnesia, titania, zirconia, a zeolite and mixtures, composite oxides or mixed oxides of any two or more thereof.

Re claims 30-33, the apparatus of Schafer-Sindlinger et al. discloses the invention as cited above, however, fails to disclose that the catalysed component comprises from 30 to 300 gr/ft³ Pd and from 30 to 300 gr/ft³ Pt, a supported catalyst part of the catalysed component contains from 0.1 to 30.0% by combined weight of Pt and Pd based on the combined total weight of the supported Pd catalyst and the supported Pt catalyst, the supported catalyst part of the catalysed component contains a weight ratio of from 95:5 to 10:90 Pd :Pt, or the supported catalysts contain from 0.1 to 10% Pt by weight and from 0.1 to 20% Pd by weight based on the combined total weight of the supported catalysts.

Schafer-Sindlinger et al. disclose the claimed invention except for specifying an optimum range of Pt and Pd densities, percentage weight, and weight ratio. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a specific optimum range of Pt and Pd densities, percentage weight, and weight ratio, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Prior Art

7. The IDS (PTO-1449) filed on October 10, 2005 and April 13, 2006 have been considered. An initialized copy of each is attached hereto.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of five patents: Davis (U.S. Patent 4,087,384), Summers et al. (U.S.

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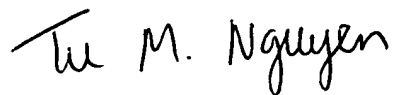
Patent 4,153,579), Domesle et al. (U.S. Patent 4,900,517), Deeba et al. (U.S. Patent 6,375,910), and Brown et al. (U.S. Patent 6,606,856) further disclose a state of the art.

Communication

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tu Nguyen whose telephone number is (571) 272-4862.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas E. Denion, can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TMN

Tu M. Nguyen

June 10, 2006

Primary Examiner

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